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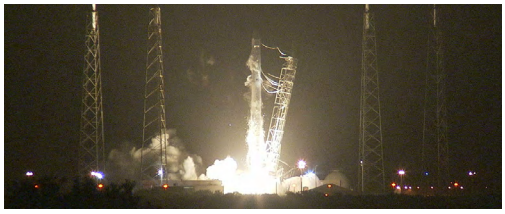
Editor: Jenalane Rowe

NASA Cargo Launched to Space Station aboard SpaceX Resupply Mission

About 5,000 pounds of NASA science investigations and cargo recently arrived at the International Space Station aboard SpaceX's Dragon spacecraft. The cargo ship launched on the company's Falcon 9 rocket from Space Launch Complex-40 at Cape Canaveral Air Force Station in Florida at 1:52 a.m. EDT Sept. 21.

The mission is the company's fourth cargo delivery flight to the space station through a $1.6 billion NASA

*See **Cargo Launch** on page 3*



A SpaceX Falcon 9 rocket with a Dragon cargo spacecraft on top launched from Cape Canaveral Air Force Station's Space Launch Complex-40 in Florida at 1:52 a.m. EDT, Sept. 21. The Dragon carried more than 5,000 pounds of supplies, science experiments and technology demonstrations including critical materials to support 255 science and research investigations during the station's Expeditions 41 and 42. (NASA Television)

2014 Tennessee Valley Combined Federal Campaign Aims to 'Make it Possible'

By Molly Porter

NASA's Marshall Space Flight Center Director Patrick Scheuermann and Army Materiel Command Deputy Commanding General Lt. Gen. Patricia McQuisition welcomed Karen Jacobs to help kick off the 2014 Tennessee Valley Combined Federal Campaign on Sept. 22 at the Marshall Center.

Jacobs is community liaison for The Community Assistance Resource

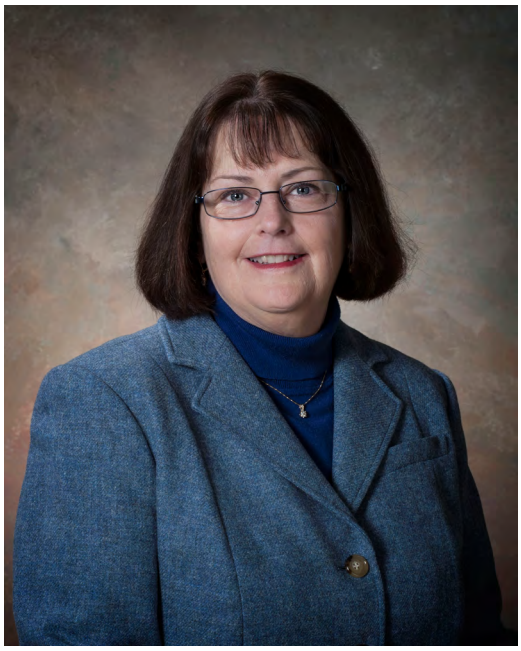
*See **CFC** on page 4*

CFC®
Combined Federal Campaign
of the Tennessee Valley

Kathleen Pollard Named Manager of Program, Planning and Control Office for NASA's Space Launch System

By Megan Davidson

Kathleen Pollard has been named manager of the Program, Planning and Control Office for NASA's Space Launch System Program at the Marshall Space Flight Center. SLS will be the most powerful rocket ever built for deep space missions, including to an asteroid and ultimately to Mars.



Kathleen Pollard (NASA/MSFC)

As part of her new position, Pollard will be responsible for formulating and implementing all SLS resource plans and an annual budget of $1.6 billion. She also serves as liaison among the SLS Program, Marshall Center and agency to develop resource requirements and implement strict budget and schedule controls in order to deliver a launch vehicle that will fulfill NASA's performance requirements within the target schedule and budget.

"I am excited and honored to have the opportunity to be part of the team that's working to launch a safe, sustainable vehicle like SLS to missions unlike we've ever done," Pollard said.

Pollard has more than 29 years of experience in aerospace program control and operations -- with a heavy focus on government financial management and program/project planning and control.

Pollard most recently was business manager of the Marshall Center's Engineering Directorate, responsible for all aspects of the directorate's resources management, including financial, human capital, and information technology budgetary formulation and execution.

From 2011 to 2013, she was associate chief financial officer and finance deputy chief financial officer at NASA's Johnson Space Center. In those roles, she supported Johnson's chief financial officer in managing all aspects of the organization, and financial and accounting operations.

In 2007, she was deputy director, acting director and director of the Program Planning and Control Office for NASA's Constellation Program. She was selected in 2005 as manager for Project Control for the Ares Projects Office at the Marshall Center.

Pollard was assistant manager for NASA's Program Control for the Next Generation Launch Technology Program from 2002 to 2005. She was responsible for the development, formulation and integration of all NGLT program control activities.

Pollard began her NASA career in 1985. From 1985 to 1999, she served in progressively responsible roles in program control and business management for the Space Shuttle Main Engine Project and the Solid Rocket Booster Project Offices at Marshall, culminating as the business manager for the Solid Rocket Booster Project Office.

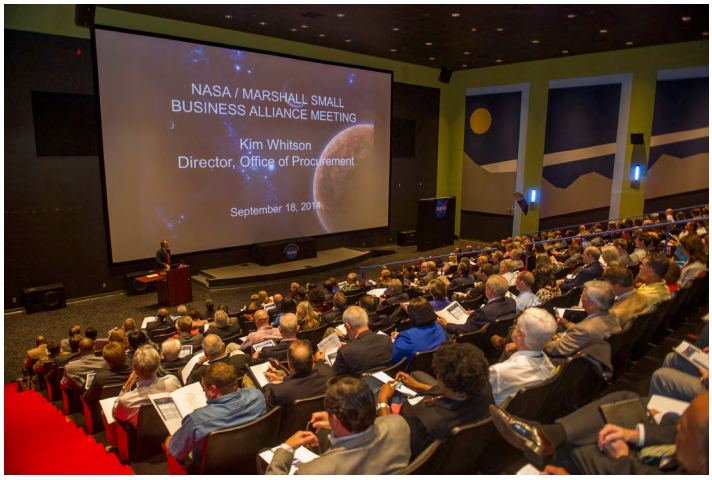
She earned a bachelor's degree in accounting in 1978 at Morehead State University in Morehead, Kentucky. Pollard received her master's degree in industrial and systems engineering from the University of Alabama in Huntsville in 1998.

For more information on SLS, visit here.

Davidson, an ASRC Federal/Analytical Services employee, supports the Office of Strategic Analysis & Communications.

Marshall Center Hosts Small Business Alliance Meeting

NASA's Marshall Space Flight Center hosted the Marshall Small Business Alliance Meeting on Sept. 18 at the Davidson Center for Space Exploration at the U.S. Space & Rocket Center. More than 450 small businesses representatives from Alabama and the surrounding states attended the meeting to learn about potential sub-contracting opportunities with representatives from Marshall Center, Johnson Space Center, Goddard Space Flight Center, Kennedy Space Center, Stennis Space Center and the NASA Shared Services. (NASA/MSFC/Emmett Given)



Cargo Launch *Continued from page 1*

Commercial Resupply Services contract. Dragon's cargo will support experiments to be conducted by the crews of space station Expeditions 41 and 42.

One of the new Earth science investigations which arrived to the orbital laboratory is the International Space Station-Rapid Scatterometer. ISS-RapidScat monitors ocean winds from the vantage point of the space station. This space-based scatterometer is a remote sensing instrument that uses radar pulses reflected from the ocean's surface from different angles to calculate surface wind speed and direction. This information will be useful for weather forecasting and hurricane monitoring.

Dragon also delivered the first-ever 3-D printer in space. The technology enables parts to be manufactured quickly and cheaply in space, instead of waiting for the next cargo resupply vehicle delivery. The research team also will gain valuable insight into improving 3-D printing technology on Earth by demonstrating it in microgravity.

New biomedical hardware launched aboard the spacecraft will help facilitate prolonged biological studies in microgravity. The Rodent Research Hardware and Operations Validation (Rodent Research-1) investigation provides a platform for long-duration rodent experiments in space. These investigations examine how microgravity affects animals, providing information relevant to human spaceflight, discoveries in basic biology and knowledge that may have direct impact toward human health on Earth.

The Dragon spacecraft transported other biological research, including a new plant study. The Biological Research in Canisters hardware has supported a variety of plant growth experiments aboard the space station. The BRIC-19 investigation will focus on the growth and development in microgravity of Arabidopsis Thaliana seedlings, a small flowering plant related to cabbage. Because plant development on Earth is impacted by mechanical forces such as wind or a plant's own weight, researchers hope to improve understanding of how the growth responses of plants are altered by the absence of these forces when grown in microgravity.

Dragon arrived at 7:04 a.m. EDT on Sept. 23, by Expedition 41 flight engineer Alexander Gerst of the European Space Agency, using the space station's robotic arm to take hold of the spacecraft. NASA's Reid Wiseman supported Gerst in a backup position. Dragon is scheduled to depart the space station in mid-October for a splashdown in the Pacific Ocean, west of Baja California, bringing from the space station almost 3,200 pounds of science, hardware and crew supplies.

The space station is a convergence of science, technology and human innovation that demonstrates new technologies and makes research breakthroughs not possible on Earth. NASA recently awarded contracts to SpaceX and The Boeing Company to transport U.S. crews to and from the space station with the goal of certifying those transportation systems in 2017.

For more information about SpaceX's fourth cargo resupply mission to the International Space Station, visit here.

For more information about the International Space Station, visit here.

Last Chance to Register for Racin' the Station Duathlon

The NASA and military workforce with Redstone Arsenal access still have a few more days to register for the third annual Racin' the Station Duathlon Sept. 27.

Athletes of all ages and abilities will try to finish a specially designed course in the same amount of time – a little over 90 minutes – that it takes the International Space Station, traveling about 17,000 mph, to complete one circuit around Earth.

Adult participants will start the race at the Marshall Center's Wellness Center Building 4315 at 8:30 a.m. CDT. They will try to finish a 3.14 km run, a 23 km bike ride and another 3.14 km run in a little over 90 minutes. Youth athletes have two shorter courses from which they can select. With a few days left to sign up, more than 220 athletes have registered with openings for up to 400.

Prizes will be awarded in several categories. For details on the race, including registration forms, course maps and distances, visit the Racin' the Station Duathlon website.

Video highlights of last year's Racin' the Station duathlon, including greetings from astronauts on the International Space Station, can be found here.

CFC *Continued from page 1*

Effort (CARE) Center, a nonprofit organization in New Hope, Alabama. The CARE Center is among more than 2600 local, national and international charities participating in the CFC.

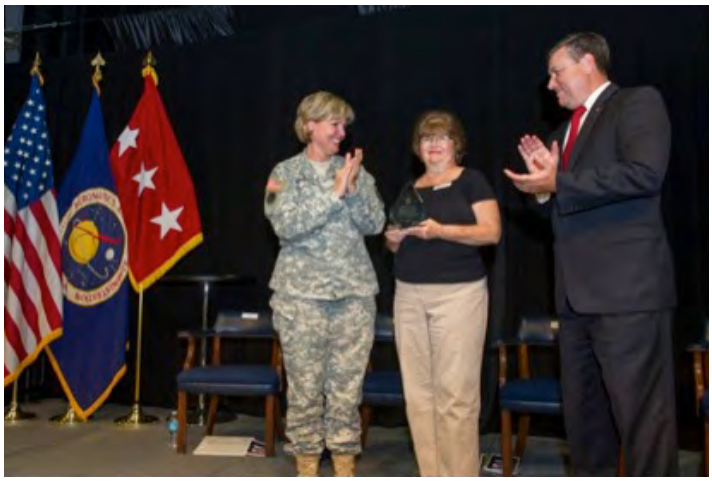
"Whether through providing food and shelter, or emotional and mental support, or childcare, or supporting education from preschool to the college level, or the environment, or veterans, or medical research and so much more, when we support the Combined Campaign I think the big thing we contribute is hope --hope in a difficult world and hope that someone does care," said Scheuermann.

"Make It Possible" is the theme for the 2014 CFC, which runs through Dec. 5. Marshall's goal is $675,000.

The Tennessee Valley CFC is the annual workplace giving campaign for Marshall, AMC and other federal agencies at Redstone Arsenal and in surrounding counties in North Alabama.

Jacobs spoke to those in attendance about opportunities to help others by volunteering or supporting a cause they are passionate about. "A self-sufficient person is a happy person, a productive person and a person who is willing to give back," said Jacobs.

Pledging through the Tennessee Valley CFC gives federal workers a chance to extend their service and touch the lives of people in the Tennessee Valley, across the nation and around the world.



Army Lt. Gen. Patricia McQuistion, left, and Patrick Scheuermann, right, present a memento to The CARE Center's Karen Jacobs, center, guest speaker for the Tennessee Valley CFC 2014 kickoff held Sept.22 at the Marshall Center. (NASA/MSFC/Emmett Given)

For more information about how you can participate in the CFC, visit here. To watch the offical CFC kickoff video, visit here.

Porter is a public affairs officer in the Office of Strategic Analysis & Communications.

Andy Warren Bringing It All Together for NASA's Space Launch System

By Megan Davidson

Andy Warren had no idea growing up that one day he would be working for NASA. But today, not only does he have 26 successful years with the agency behind him, but Warren also is working on the future of deep space exploration -- NASA's Space Launch System.

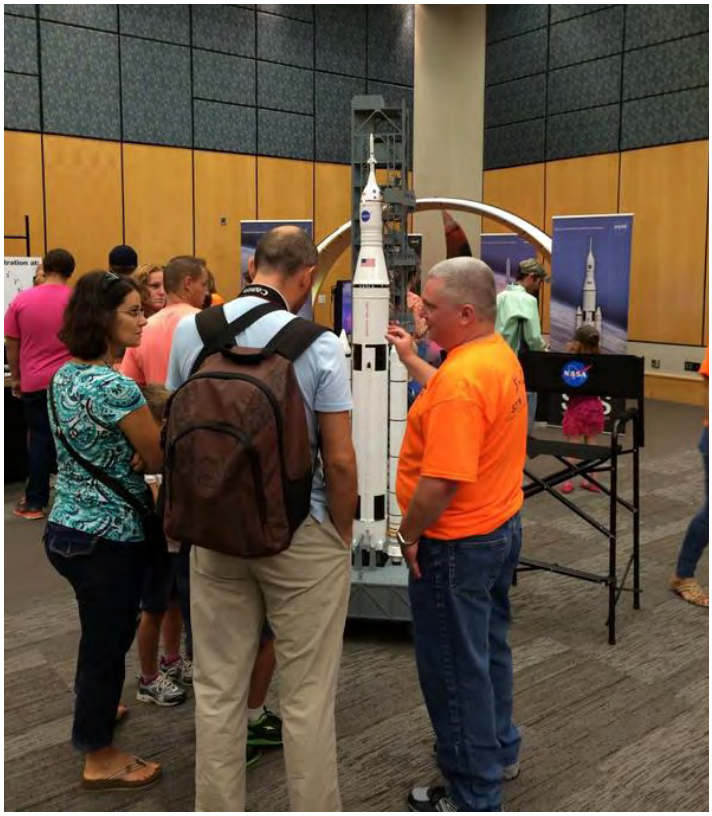
When completed, SLS will be capable of taking a crew and cargo on deep space missions, including to an asteroid and eventually to Mars.
Warren is the deputy manager for the Ground Operations Liaison Office at NASA's Marshall Space Flight Center. He and his team ensure close communication and coordination between the SLS Program, managed at the Marshall Center, and the Ground Systems Development and Operations Program at NASA's Kennedy Space Center. The GSDOP was established to develop and operate the complex equipment required to assemble and safely launch rockets and spacecraft.

"I began my career at Kennedy Space Center in 1988 as an engineer, which I think is a huge benefit to my current job of being a liaison between the two centers," Warren said.

"My start at Kennedy is really where space exploration got in my blood," he added. "I'm proud to be a part of such an ambitious program and hope our new vehicle, SLS, fuels excitement about space exploration in future generations the way it did for me working on the Space Shuttle Program."

Warren worked at Kennedy until 2004, when he moved to Huntsville to work on the Space Shuttle Program at Marshall. From 2004-2011, he worked on the space shuttle solid rocket boosters and served on the shuttle mission management team.

In 1987, he earned a bachelor's degree in physics from Georgia Southern University in Statesboro, where he was a Bell Honors Program Scholar. A year later, he received another bachelor's degree -- this in mechanical engineering, from the Georgia Institute of Technology in Atlanta. He earned his master's in business administration in 1992 from the Florida Institute of Technology while working at Kennedy.



Andy Warren, right, talks about SLS on Sept. 20 at Georgia Southern University's STEM Festival. (NASA/MSFC)

He returned to Georgia Southern University Sept. 19 to talk to students about SLS and his NASA career. On Sept. 20, he participated in the university's second-annual STEM Festival -- aimed to get students excited about science, technology, engineering and mathematics disciplines.

The first flight test of the SLS will feature a configuration for a 70-metric-ton (77-ton) lift capacity and carry an uncrewed Orion spacecraft beyond low-Earth orbit to test the performance of the integrated system. As the SLS evolves, it will provide an unprecedented lift capability of 130 metric tons (143 tons) to enable missions even farther into our solar system.

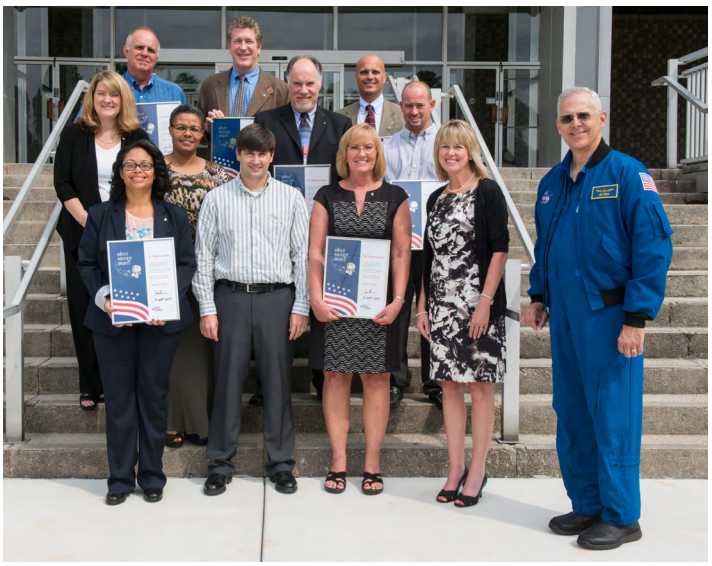
For more information on SLS, visit here.

Davidson, an ASRC Federal/Analytical Services employee, supports the Office of Strategic Analysis & Communications.

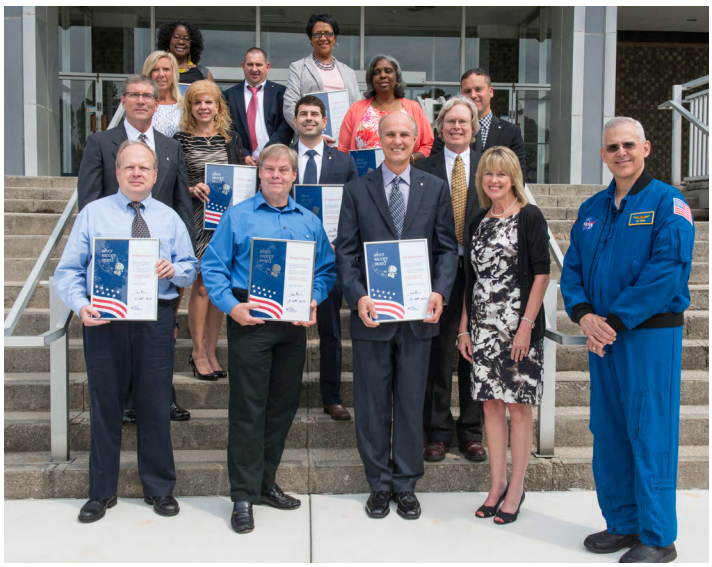
NASA Honors Marshall Team Members with Silver Snoopy Award

On Sept. 18, team members at NASA's Marshall Space Flight Center were honored with the NASA Silver Snoopy award for their outstanding achievements related to human flight safety or mission success. The award is presented by the NASA astronaut corps, as it represents the astronauts' own recognition of excellence. For more information on the award, visit here.

The awards were presented to 23 Marshall team members by Marshall Center Deputy Director Teresa Vanhooser and NASA astronaut Lee Morin, mission specialist for STS-110 Atlantis -- the 13th shuttle mission to visit the International Space Station.



From left, honorees Sonya L. Dillard, Safety & Quality Department; Jonathan D. Walden, Spacecraft & Vehicle Systems Department; Betty D. Amos, ISS Office; Marshall Center Deputy Director Teresa Vanhooser; astronaut Lee Morin; Emily R. Swing, Budget Integration & Analysis Office; Sharon Chunn, Policy, Processes, & Systems Office; Michael L. Reynolds, Environmental Engineering & Occupational Health Office; John Micah Embry, Test Laboratory; John C. Wilson, Space Systems Department; Steven Gregg McDaniel, ISS Office; and Larry S. Gagliano, Exploration & Space Transportation Development Office. (NASA/MSFC/Fred Deaton)



From left, honorees Porter Clark, Space Systems Department; John M. Weir, Space Systems Department; Robert S. Dougert, Propulsion Systems Department; Marshall Center Deputy Director Teresa Vanhooser; astronaut Lee Morin; Gordon Carey, Test Laboratory; Deborah H. Stone, Policy & Information Management Office; Jonathan Mack, Space Systems Department; John W. Jellicorse, Spacecraft & Vehicle Systems Department; Susan M. Thomas, Accounting Operations Office; Chana D. Johnson, Mission Systems Assurance & Technical Support Department; Christopher A. Drucker, Business Process & Application Operation Process Office; Terri C. Dailey, Office of the Chief Financial Officer; Thomas J. Essenmacher, Mission Support & Integration Office; and Angela Storey, Office of Strategic Analysis & Communications. (NASA/MSFC/Fred Deaton)

Pink Up Marshall Space Flight Center on Oct. 1

October is Breast Cancer Awareness Month and what better way to start it off than to wear pink to work! "Pink Up MSFC" will be on Oct. 1. Team members are encouraged to wear pink that day to increase awareness of the importance of early breast cancer detection.

Show your support by taking "selfies" or group photos of you in your pink attire and post them to Twitter using the hashtag #PinkUpMSFC and tag @NASA_Marshall. You can also post them on the Breast Cancer Awareness group page on ExplorNet.

Marshall team members also are invited to attend a lunch and learn on Oct. 2 from 11:30 a.m. to 12:30 p.m. in Building 4220, Conference Room 1136, hosted by the Marshall Breast Cancer Awareness Committee. Dr. Terry Sterry, Employee Assistance Program Coordinator in Marshall's Office of Human Capital, will discuss "Promoting and Protecting Wellbeing." This lunch and learn is meant to teach certain skills for protecting a caregivers wellbeing when a family member has been diagnosed with breast cancer, other types of cancers or other serious illnesses.

New ISERV Tool Enables Rapid View of Earth Images from Space

Flipping through online photo albums and social media collections of "selfies" is one thing, but when pictures can show land areas where millions of people live, it can put things in a completely different perspective -- especially for scientists.

One of NASA's newest tools for effective Earth observation has been orbiting our planet for more than 15 years. The International Space Station provides a constant, reliable perspective from which to record changes on the surface of Earth.

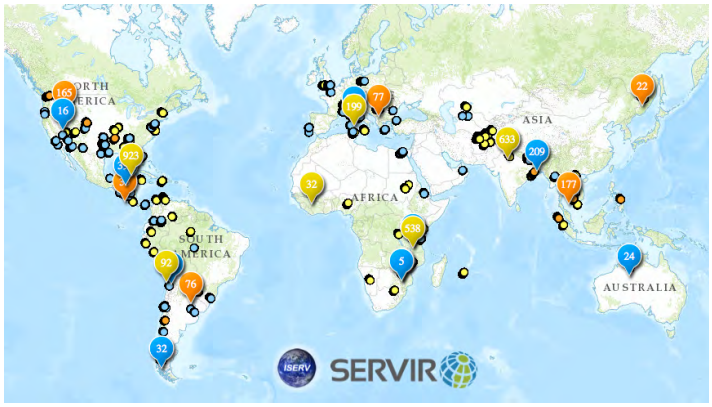
A new user-friendly online resource will provide images from a space station camera with nearly two years of images to share. The interface is a world map that links to thousands of images made by the ISERV camera: the International Space Station SERVIR Environmental Research and Visualization System. With the click of a mouse, the public can access the images with the ISERV Viewer.

People can view and download specific ISERV captures from a collection of more than 4,000 Earth images. ISERV scientists plan to expand the database to about 60,000 by summer 2015.

ISERV was installed as a technology testbed in the Window Observational Research Facility on the orbiting laboratory in January 2013 and is scheduled to be removed from operation in 2015. The camera receives and acts on commands from the ISERV team to acquire image data of specific areas of Earth's surface as the space station passes overhead.

Images from ISERV are uploaded quickly to the Web due to a new automated georeferencing capability, allowing imagery to be processed and published much faster. This is critically important when dealing with a disaster situation. Georeferencing is a process in which points in an image can be associated with geographic locations on a map. Developed by the ISERV ground team, the automated system uses the space station orbit and position data, along with the acquisition time information contained within each image to establish its location on Earth and post it on the online map.

"ISERV has demonstrated the value of Earth observation from the International Space Station



An image of lakes near the southern tip of Chile in South America taken by the ISERV system on the International Space Station. (NASA)

for decision makers and disaster responders around the world," said Burgess Howell, ISERV principal investigator at NASA's Marshall Space Flight Center. "This new image portal will provide public access to a vast array of images over much of the populated area of Earth."

With ISERV, the SERVIR team has pioneered using the space station to support humanitarian relief and disaster support in underserved regions of the globe.

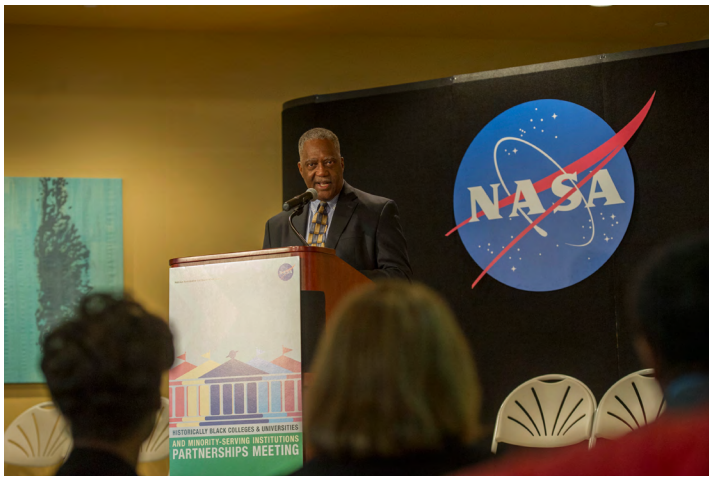
"Nearly 95 percent of the planet's populated area is visible during the station's orbit," said William Stefanov, PhD., associate program scientist for Earth observations in the International Space Station Program Science Office at NASA's Johnson Space Center. "Imagery captured by ISERV provides valuable information to the scientists and governments around the world to assist in environmental assessments and disaster situations."

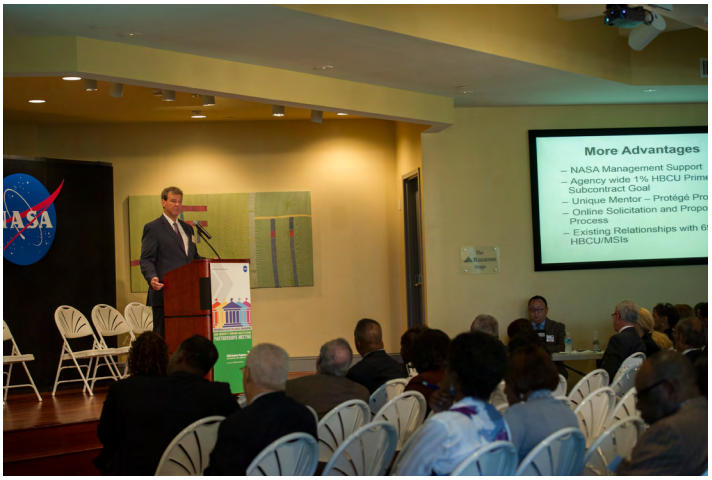
Much as parents can look back to see how their child has changed over the years, scientists hope that the snapshots gathered by ISERV of land areas before and after environmental changes will improve future response to natural disasters.

For more information about SERVIR, visit here or here.

Marshall Center Hosts NASA's Minority Partnerships Meeting

On Sept. 17, Ronald Blakely, the White House associate director for the Initiative on Historically Black Colleges and Universities, speaks during NASA's first Partnerships Meeting for HBCUs and Minority Serving Institutions. NASA's Office of Small Business Programs hosted the event, in which representatives from 30 universities and dozens of NASA prime contractors from across the country discussed potential subcontracting opportunities. (NASA/MSFC/Emmett Given)





Craig Bowers, small business liaison for NASA's Office of Procurement, explains the procurement process for doing business with NASA to representatives from 30 Historically Black Colleges and Universities (HBCUs) and Minority Serving Institutions (MSIs). Guest speakers, panel discussions and networking sessions at the Sept. 17 event allowed participants to learn more about potential subcontracting opportunities and to discuss strategies that may better serve minority students and increase the minority workforce. (NASA/MSFC/Emmett Given)

Obituaries

Joseph Howard Kerr, 81, of Huntsville, died Aug. 14. He retired from the Marshall Center in 1997 as an aerospace engineer. He is survived by his wife, Mavis W. Kerr.

Robert Harold Rutherford Sr., 81, of Huntsville, died Aug. 28. He retired from the Marshall Center in 1995 as an aerospace engineer.

Billy Bragg Cole, 80, of Decatur, Alabama, died Aug. 30. He retired from the Marshall Center in 1995 as an aerospace engineer. He is survived by his wife, Martha H. Cole.

M.F. "Bill" Dodd, 80, of Arab, Alabama, died Sept. 5. He retired from the Marshall Center in 1989 as a safety specialist. He is survived by his wife, Margaret Dodd.

Walter Dudley Caldwell Sr., 88, of Huntsville, died Sept. 18. He retired from the Marshall Center in 1975 as an aerospace engineer.